CONNECTICUT ENVIRONMENT

The Citizens' Bulletin of the Connecticut Department of Environmental Protection

The Winter Forest

February
1989

CONNECTICUT
ENVIRONMENT

February 1989
Volume 16 Number 6
$6/year

Page 3.

Page 19.

Cover by Michael D. Klein

Features

Departments

DEP Connecticut Environment

Published 11 times a year by the Department of Environmental Protection. Yearly subscription, $6.00; two years, $11.00. Second class postage paid at Hartford, Connecticut. Please forward any address change immediately. Material may be reprinted without permission provided credit is given, unless otherwise noted. Address communications to Ed., **DEP Connecticut Environment.** Dept. of Environmental Protection, Rm. 112, State Office Bldg., Hartford, CT 06106.

Editor's Note

Someone here at mission control, in the vast complexes of the State Office Building itself, put a rather disquieting item on a bulletin board. It was a map of the world, and it showed some -- *some* -- of the current threats to life as we know it. The map shows the phenomenon of extinction -- the permanent, man-caused disappearance of genetic material -- from the universe. It shows the trend toward global warming brought about by the spewing of carbon dioxide into the atmosphere and the burning of large tracts of tropical forest. It shows the waste crisis, the steady piling up of household garbage and toxic and radioactive waste, with no end in sight and no place to put it. The map shows the hole in the ozone layer. The map shows overpopulation.

Nothing on this world map looks real good. There is a nightmarish quality to it. It forces you to confront that most fundamental and uncomfortable of questions -- what's the point of anything?

What is the point, then? What do you do when everywhere you look are insurmountable obstacles, when hardly anybody seems to be seriously concerned, when you are running out of reasons to keep going? It is then -- no, it is *now* -- that those who see and care about what is happening to this irreplaceable planet must rise to nothing less than the heroic level. No matter what, we continue the struggle; we do not, under any circumstances, give up. And if it should happen, as it might, that you -- you *personally*, dear reader of this little magazine -- are the last single person in the world to carry on that struggle, then so be it. That's what you'll do. Because then, as long as you personally are around, then there is still cause for hope. That's the point.

R.P.

James Pepe, James Lucey, Karen Sanders, and Cheryl Burke present information on the "Dragonfly Pond" activity, one of the innovative approaches to teaching environmental awareness in Project WILD.

Connecticut Goes WILD

From environmental awareness to environmental responsibility

Text and Photos
by
Diane Chisnall Joy
Environmental Curriculum
Coordinator

PROJECT WILD has recently come to Connecticut through the efforts of the DEP. What is Project WILD? It is a conservation and environmental education program which emphasizes wildlife and wildlife habitat, and is geared to teachers of grades kindergarten through high school. Why Project WILD? Because in order to find solutions to our present and future environmental problems we must develop an "environmentally literate society." Project WILD helps students to be-

come environmentally literate by teaching major ecological concepts through a "hands-on" approach. Students learn to make informed decisions on environmental issues.

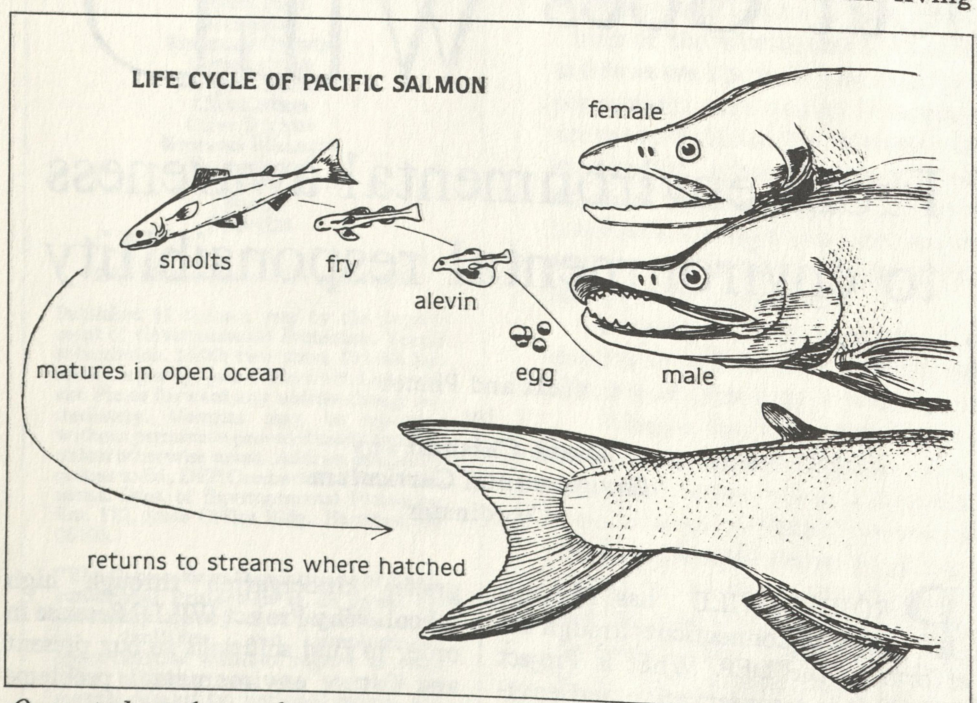
Project WILD is new in Connecticut, but not in most parts of the United States; it is currently being sponsored in 41 other states and Canada. It has reached more than 150,000 educators in workshops and has received awards from the Wildlife Society, the Conservation Education Association, the North American Association for Environmental Education, and the National Wildlife Federation.

The Program is designed to take young people from awareness to responsible human action. Years ago, many felt that if children became aware of their environment, if they became aware of the beauty of nature that surrounded them, they would work to protect that intrinsic value; but we have come to understand that only awareness is not enough.

Frank Gallo (Project WILD and Project Learning Tree facilitator) confers with Carolyn Brennan (Project Learning Tree facilitator) concerning environmental curricula.

THE GOAL OF PROJECT WILD is to assist learners of any age in developing *awareness*, *knowledge*, *skills*, and *commitment* to result in informed decisions, responsible behavior, and constructive actions concerning wildlife and the environment upon which all life depends.

Awareness and appreciation are important aspects of learning. They are a base upon which to build, and a point at which children can be introduced to wildlife and its habitat. *Knowledge* is necessary to understand the intricate balance of all living things, and to see how fragile and finite our planet truly is. *Skills* - such as observation, analysis, experimentation, and evaluation -- are necessary so that we can make informed decisions as responsible members of the ecosystem. A sincere *commitment* is essential if we are to preserve and improve our environment.



Once students learn about the life cycle of the Pacific salmon, they are able to generalize that understanding to apply to other environmental areas.(All drawings from Project WILD Aquatic *workbook)*

PROJECT WILD was originally conceived by resource management professionals and education administrators from 13 western states working through the Western Regional Environmental Education Council (WREEC) and the Western Association of Fish and Wildlife Agencies (WAFWA). The materials to teach environmental concepts were extensively field-tested and evaluated and finally made available in 1983 in the final form. Project WILD is now set forth in two activity guides, one for elementary and the other for secondary school students. In 1987, an Aquatic Supplement was also made available, emphasizing aquatic species and aquatic ecosystems.

In June, 1988, through the coordinated efforts of Dennis DeCarli, deputy commissioner of Conservation and Preservation, Steven Fish, assistant director of the Information and

Education Unit, and Paul Herig, director of the Wildlife Bureau, the DEP became an official state sponsor of Project WILD in Connecticut.

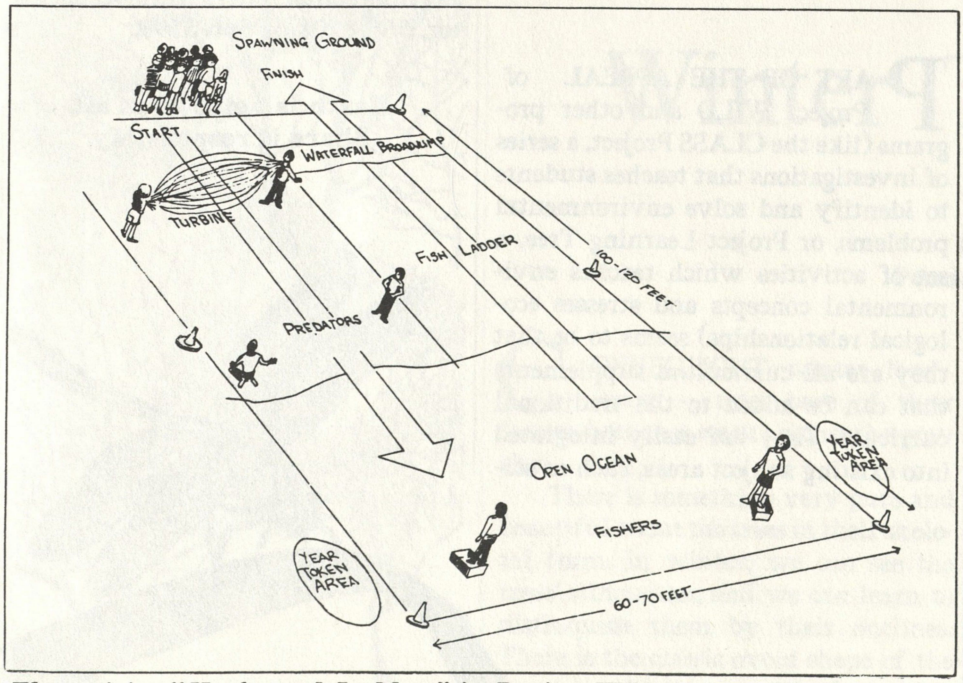
Connecticut's first Project WILD/ Aquatic Leadership workshop was held in Colebrook, in November, 1988. Twenty-eight people were in attendance, all chosen for their experience in and commitment to environmental education. Elementary and secondary school teachers, educators from conservation and outdoor education centers, environmental educators and administrators, environmental consultants, and wildlife biologists came from throughout the state.

Dr. Cheryl Charles, national director of Project WILD, conducted the workshop, with the assistance of DEP personnel. The WILD Coordinators from Indiana and Washington State, Warren Gartner and Larry Broder, respectively, provided technical assistance.

Project WILD facilitators receive instructions prior to the "Hooks and Ladders" activity.

The facilitators were instructed in planning and teaching educator workshops. The instructional materials are made available, free of charge, only to participants in such workshops. Educator workshops encourage teachers to approach teaching from an environmental perspective; prepare educators to use the materials with their students; and - an especially important aspect of the program - bring educators and resource personnel together to share information and exchange ideas.

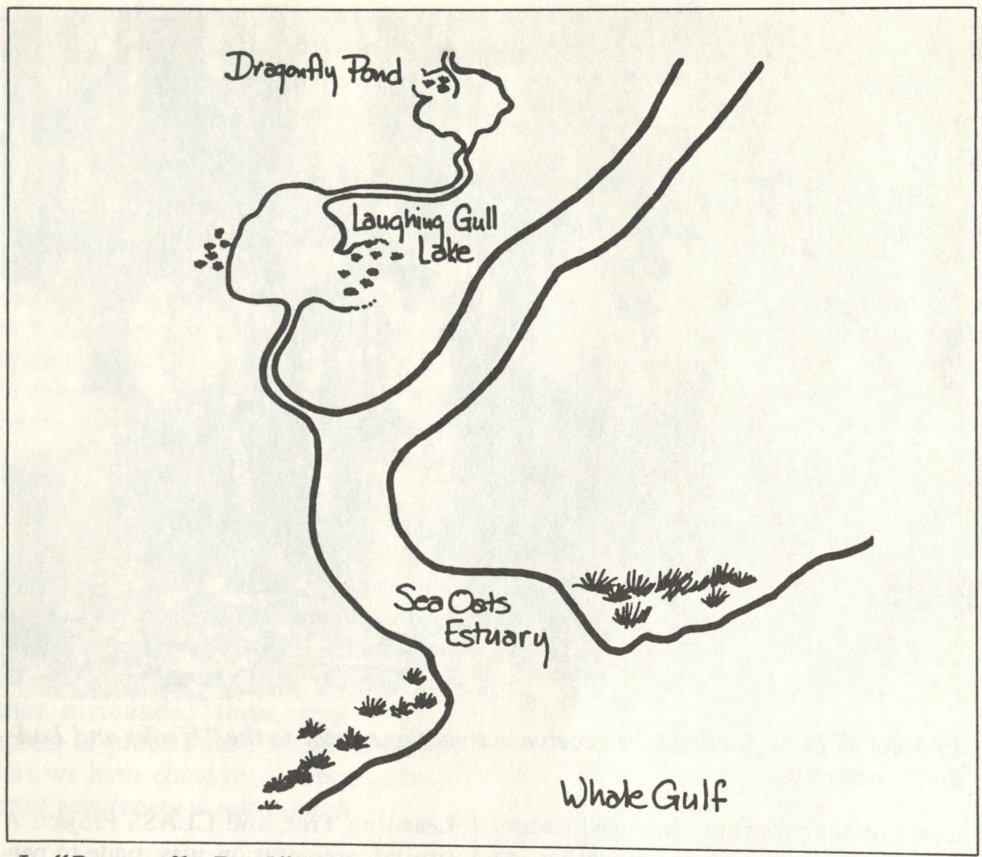
Prior to the facilitators' workshop, 50 DEP wildlife biologists, foresters, fisheries biologists, and associated personnel assembled at Dinosaur State Park in Rocky Hill to become familiar with the new environmental curricula: Project WILD, Aquatics, Project Learning Tree, and CLASS Project. A similar presentation was made to personnel from the Natural Resources Center of the DEP. Only with the participation and support of these individuals can we provide the people of Connecticut with a complete environmental education program. The agenda for the facilitators' workshop included demonstrations of some of the WILD and Aquatic activities: "Hooks and Ladders," "What's Wild?" "Owl Pellets," and "Dragonfly Pond."



The activity "Hooks and Ladders" in Project WILD teaches students why survival is not to be taken for granted.

"Hooks and Ladders," an activity from the Aquatic guide, gets students physically involved in a simulation. Students learn to recognize that some fish migrate as part of their life cycle. Students also learn to identify the stages of the life cycle of one kind of fish; to describe limiting factors affecting salmon as they complete their life cycle; and finally, to generalize that limiting factors affect all populations of animals. This exercise simplifies, but effectively illustrates, the three important concepts of life cycle, migration, and limiting factors.

Once the students have been introduced to the major concepts, the extensions are endless. After having completed the "Hooks and Ladders" activity, the students might visit a



In "Dragonfly Pond," students get a sense of the vast amount of life to be found in one small area through direct examination of water samples.

fish hatchery and learn about laws to protect migratory species; or design the "perfect" fish ladder after exploring ways that dams can be modified to safely allow fish to pass upstream and downstream.

The "What's Wild?" activity helps students to distinguish between wildlife and domesticated animals and can be integrated into science, language arts, or art classes for kindergarten through third grade.

"Owl Pellets" is an activity that enables students to construct a simple food chain after examining owl pellets, thus allowing them to recognize the interdependence in ecological systems. This can serve as an introduction to anatomy or can lead to study of small mammals and their distribution.

The "Dragonfly Pond" activity allows students to evaluate the effects of different kinds of land use on wetland habitats and to discuss and evaluate lifestyle changes to minimize damaging effects on wetlands.

The point here is that students are being taught "*how* to think, not *what* to think." By developing critical thinking skills, and not approaching teaching or learning with a particular bias, the voters of tomorrow will become environmentally active and responsible citizens.

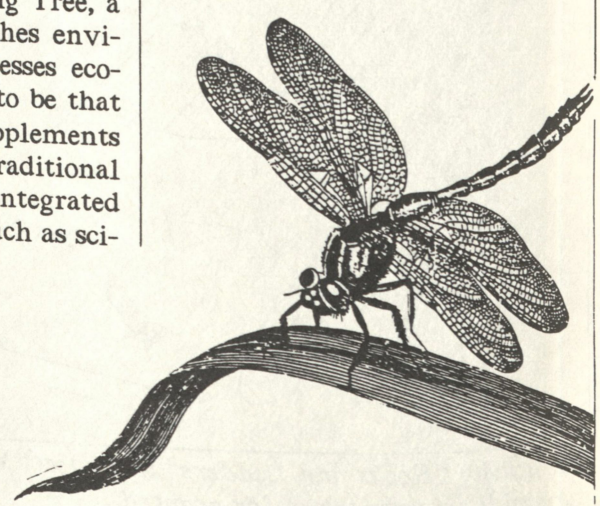
PART OF THE APPEAL of Project WILD and other programs (like the CLASS Project, a series of investigations that teaches students to identify and solve environmental problems, or Project Learning Tree, a set of activities which teaches environmental concepts and stresses ecological relationships) seems to be that they are all curriculum supplements that can be added to the traditional curricula. They are easily integrated into existing subject areas, such as science, mathematics, social studies, and language arts. This means that environmental education becomes more balanced and holistic. Beyond this, it is clear that students truly enjoy the "hands-on" approach to learning. Not only do they develop new skills, but they also can relate the things they learned to the world around them. The goal is a more "environmentally literate society" that will be better able to develop solutions to current and future environmental problems.

THE DEP HAS ASSUMED a major role in sponsoring Project WILD in Connecticut. "Project WILD is people," says Rudolph Schafer of the Western Regional Environmental Education Council. "It is educators, resource managers, citizen conservationists, and others -- doing something together which they believe is important for children, and for the land and its resources, now and for the future."

Project WILD was made possible through the mutual cooperation and assistance of various units within DEP: the Information and Education Unit and the Bureaus of Wildlife and Fisheries.

For further information on Project WILD or other environmental curricula, please contact: Diane Chisnall Joy, environmental curriculum coordinator, 566-8108 or 566-5599. ■

Earth is home to us all.
Share it responsibly.



This gray squirrel is one of the many creatures which depend upon trees for their food supply. The fall months are spent caching acorns, hickory nuts, and beech nuts for the winter. (Photo: L.L.Rue III)

Winter Treescape

by
Penni Sharp

CONNECTICUT winter landscape – trees bare of their leaves, branches stark against the gray sky.

There is something very pure and beautiful about the trees in their skeletal form. In winter, we can see the trees' silhouettes, and we can learn to distinquish them by their outlines. There is the classic ovoid shape of the sugar maple; the vase-like branching of the American elm; the drooping lower branches of the pin oak – all clues for winter tree identification. Trees growing in the open are of course easiest to recognize by shape. Those in dense woods do not usually take on the classic shapes.

Trees can also be identified by the twigs, and there are plenty of books to help you with this. This comes down to a process of elimination; you are given choices. For instance, do the branches and buds grow opposite each other,

Trees harbor a wide variety of animal life. Raccoons seek shelter in hollow trees. (Photo: L.L. Rue III)

or do they grow alternately? If opposite, then the tree must be either a maple, ash, dogwood, or horse chestnut. Leaves and branches on all others grow alternately.

Twigs also provide clues to their identity through the buds and the leaf scars. Buds come in a wide variety of shapes and sizes, and some are unmistakable. For example, the buds of the beech tree are long and pointed, with overlapping scales; red maple buds are rounded and red; and butternut and hickory buds are a powdery, sulphurous yellow. Leaf scars are also very telling. A leaf scar, as its name implies, is a mark on the twig where the stem of last summer's leaf was attached. The scars on each tree species have a distinctive pattern, some looking like a crescent moon, some like a camel's head, but each with a characteristic uniqueness.

Bark patterns are good diagnotic tools. There is the smooth gray bark of beech trees that tempts so many into carving their initials into the tree; the shiny peeling bark of the yellow birch; and the vertical exfoliating bark of the shagbark hickory. Naturalists often have anecdotes or mnemonic devices to remember certain characteristics. When I first learned to look at winter trees, I was taught to imagine "ski trails," the vertical running lines noted on the trunks of mature red oaks.

LEARNING TO IDENTIFY trees without their leaves is rewarding, and you might even wish to go one step further by understanding a tree as a community of living things. Many animals find nourishment and shelter in and around trees during harsh winter months.

In the crevices of tree bark can be found the eggs or the pupating forms of many insects. There may even be a species of beetle that remains active throughout winter. Close examination of tree bark will reveal some of the many creatures therein. Although most of us probably give little thought to the insect populations that may be found on the bark of a tree, there are a number of birds whose survival depends upon them. If you observe trees in winter, you are bound to spot one or more of the bird species that work the trunks of trees in search of food. One of the most handsome is the white-breasted nuthatch, a bird distinguished by its habit of working upside-down. Starting near the top of a tree trunk, the nutnatch travels down the trunk head first, exploring the bark crevices with its long, narrow bill. Another bird of the tree trunks is the brown creeper. It moves in direct contrast to the nuthatch, beginning near the base of the trunk and traveling upwards. The brown creeper is well-camouflaged and, with its brown patterned feathers, may be difficult to spot. The creeper has a long, curved bill that is excellent for probing bark furrows.

Several species of woodpecker now overwinter in Connecticut, searching tree trunks and branches for insect food. Often, one hears the woodpecker before actually seeing it. Our largest woodpecker, the pileated, is somewhat elusive, but its presence is certainly indicated by its impressive excavations. Should you come upon a pile of large woodchips at the base of a tree and look up to see a sizable cavity, you can be pretty sure that a pileated woodpecker has been at work.

In addition to woodpeckers, creepers, and nuthatches, chickadees and titmice are often found on the trunks and branches of trees. The food supply hidden away in and around the fissures of bark must be plentiful, as the birds continue to find sustenance even in late winter.

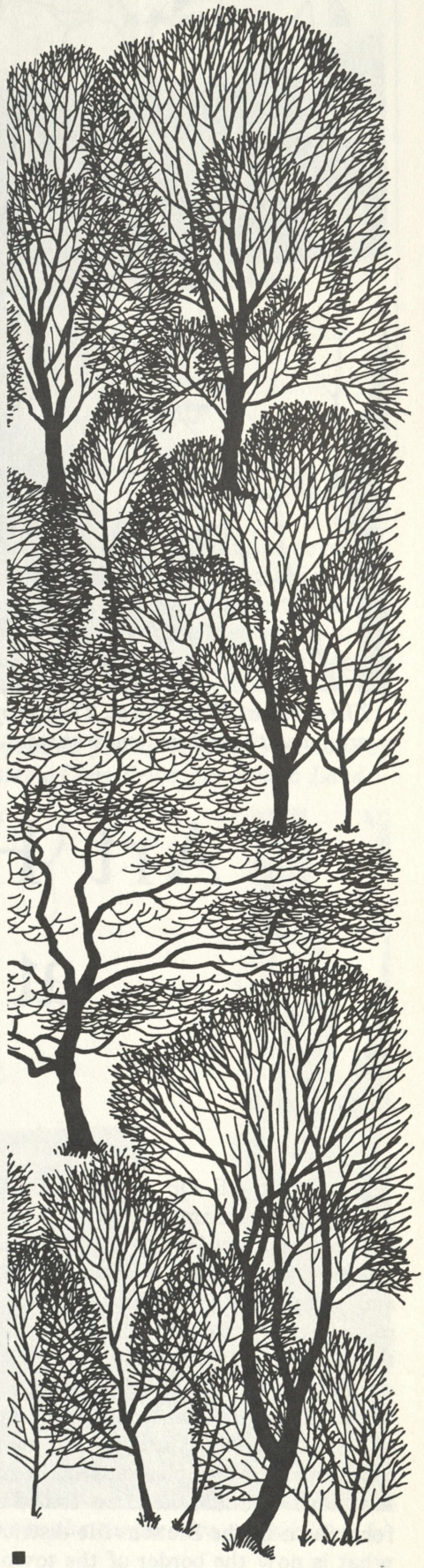
AND THERE ARE OTHER creatures which find shelter and food among the trees. The big leafy nests that are visible in winter are occupied by squirrels. By late winter or early spring, the first squirrel young of the year may be sheltered in the grass-lined nest. Squirrels depend upon trees for their food supply and spend fall months caching acorns, hickory nuts, and beech nuts for the winter. Other local mammals that

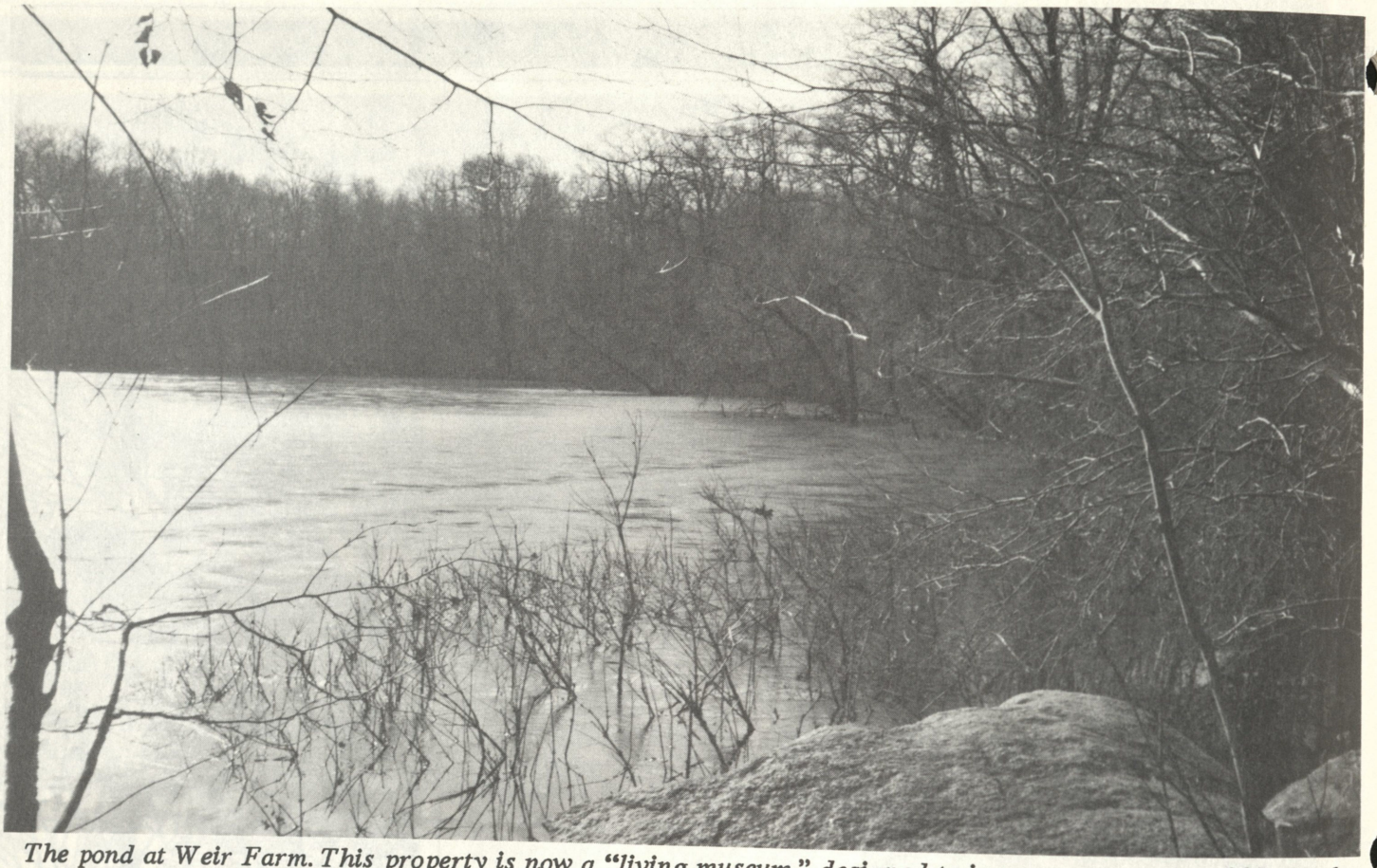
The pileated woodpecker is sometimes hard to see, but its presence in the winter treescape is indicated by its impressive excavations. (Photo: Irene Vandermolen)

seek shelter in tree hollows or fallen logs include the skunk, opossum, and raccoon.

Trees continue to harbor a wide variety of animal life, even when no longer standing. One of my winter chores is to move and stack the firewood with which we heat our house. Among the stacked split logs, I invariably uncover the bits of fluff, grass, and leaves that make up a mouse nest. I also usually can find a little stash of cracked cherry seeds, a snakeskin, and countless spiders, sowbugs, and beetles. Our woodpile is a thriving colony of vertebrates and invertebrates, all dependent in one way or another upon the wood. We humans are also dependent upon that wood. It heats us several times over throughout the winter -- first when we fell the trees and cut them into logs, then in the effort of transporting the logs, once more when logs are split and stacked, and finally when the logs are burned. The heat from a wood fire is, as we all know, truly a warming heat. There is nothing quite so cheering on a cold winter's day as a good fire in the wood stove and the kettle simmering on top.

TREES ENRICH OUR LIVES. Throughout the year, they dominate our landscape. They are vital to many living things and play a particularly important role in winter when food supplies can be scarce and smaller plants may be underneath deep snow cover. If you want to see animals or signs of an animal's presence, the best place to look is the tree in your backyard. A great deal can be learned from the living community which is a tree. ■





The pond at Weir Farm. This property is now a "living museum," designed to increase awareness of history, the arts, and the natural environment. (Photos: Ronald Chernovitz)

Art History is Preserved at the Weir Farm

by
Bryan Holley

THE ROLE OF ART AND ARTISTS in raising the environmental consciousness of Americans has long been acknowledged. John James Audubon is perhaps the most famous artist/naturalist, but hundreds of poets and painters have played a part in the environmental movement by instilling in people an increased appreciation of nature through their artwork.

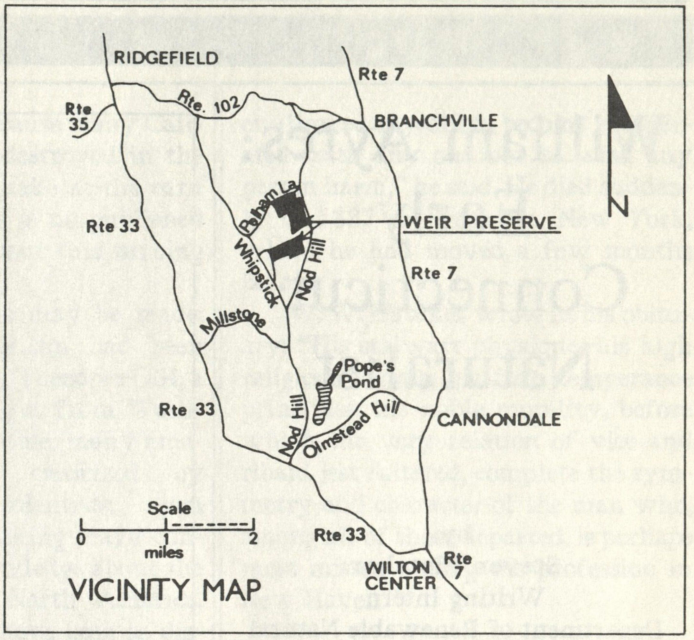
Few have contributed more than the painter J. Alden Weir, a leader of the American Impressionist Movement of the later 19th century. Like many of his European counterparts, Weir placed special emphasis on the rural landscape. In 1883, the artist traded one of his paintings for a farm in the Branchville district of Connecticut on what is now the border of the towns of Ridgefield and Wilton in Fairfield County. With over 200 acres of meadows, woodlands, and wetlands, the Farm provided the inspiration for many of Weir's finest works and for those of several other American painters who visited the Farm, including Childe Hassam, J.H. Twachtman, and Albert Pinkham Ryder. Following Weir's death in 1919, his son-in-law Mahonri M. Young -- a grandson of Brigham Young and gifted artist in his own right -- sculpted on the Farm many of his finest works, including monuments to the Mormon tradition now installed in Salt Lake City and throughout Utah. Today, many art historians regard the Weir Farm as an American equivalent to Monet's Giverny.

In 1984, Weir Farm was placed on the National Regis-

ter of Historic Places, but at the same time, Ridgefield and Wilton entered a period of rapid growth and skyrocketing real estate values as a result of burgeoning commercial development in the nearby cities of Stamford, Greenwich, and Hartford. With ownership of the Farm fragmented among several individuals and development interests, outlying portions of the property began to succumb to residential subdivision.

NEARLY FIVE YEARS AGO, a group of local residents and admirers of Weir's work brought together the Trust for Public Land (TPL), a prestigious national environmental group, and the DEP to develop an approach for preserving this precious New England resource. The protection effort was given momentum in 1986 when the state Legislature appropriated $2.7 million for public purchase of the site. Then, through a series of intricate negotiations with several landowners, TPL reassembled the most critical portions of the land, including Weir's historic farmhouse, the artists' studios, and the famed orchard and pond.

In August of 1988, TPL conveyed nearly 44 acres of the original Weir Farm to the state of Connecticut, which plans to designate the site as the state's first cultural park. Although key portions of the Farm have now been protected from development, much more needs to be done. TPL is currently working with a committee of experts in art and historic preservation to raise funds for additional land acquisition, research, and a long-term management plan to ensure the careful restoration and protection of this fragile and unique landscape.



Weir Farm presents a rare opportunity to develop a kind of "living museum" designed to enhance the public's awareness and appreciation of history, the arts, and the natural environment while providing inspiration to future generations of artists who will carry on the legacy of the American Impressionists. ■

(This article was reprinted from the fall, 1988, issue of Update, *the newsletter of the Trust for Public Land.)*

The main house at the Weir Preserve. The success of this project has been due to the cooperation of public and private environmental organizations.

William Ayres: Early Connecticut Naturalist

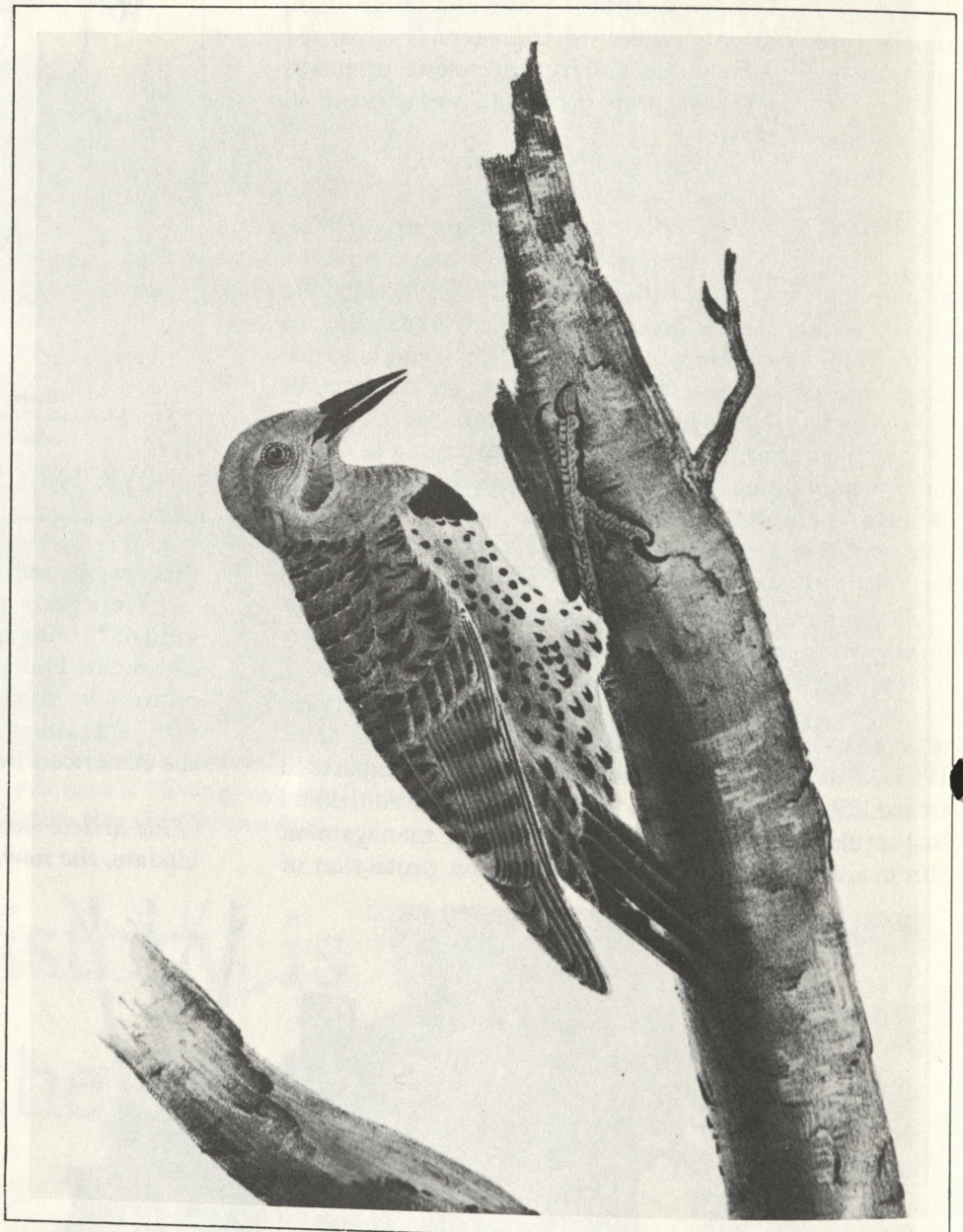
by
Steven Fletcher
Writing Intern
Department of Renewable Natural Resources
University of Connecticut
State Musuem of Natural History

WILLIAM ORVILLE AYRES was one of Connecticut's first ichthyologists. His contributions to our knowledge of American fishes began in the mid-1800s, when many naturalists here and around the United States were amateurs. Not only did most Americans of that era still view nature as an adversary, but most were still struggling to carve out a livelihood in opposition to this adversary.

In the early 1800s, American naturalists usually graduated from medical or divinity schools in London or Edinburgh, or from the American universities such as Yale, Harvard, the University of Pennsylvania, or Columbia. Many American schools had no professional naturalists. For example, the first professor of chemistry and natural history at Yale was Benjamin Silliman, who was appointed by Yale President Timothy Dwight in 1795.

William O. Ayres was born in 1817 in New Canaan, Connecticut, to Jared and Dinah (Benedict) Ayres. He graduated from Yale in 1837.

During his early days at Yale, Ayres impressed John James Audubon with his energetic studies in natural history, especially with birds.



The red-mustached woodpecker, Picus ayresii, *first described by John James Audubon, who named it for William Orville Ayres. It is now called the northern flicker. (Photo from* Birds of America, 1871, *Special Collections, The Homer Babbidge Library, UConn.)*

Audubon swayed Ayres away from the popular field of ornithology to the unknown study of fishes.

Audubon thought so highly of Ayres that when the famed painter discovered the red-moustached woodpecker (now called the northern flicker), he named the bird for Ayres (*Picus ayresii*). In his description, he said, "I have named this handsome bird after my young and learned friend, W.O. Ayres, Esq., who is well known to science as an excellent ichthyologist; and who also is well conversant with the birds of our country."

Audubon asked Ayres to help on his volume of viviparous quadrupeds (four-legged animals that produce living young). "Now knowing the interest you feel toward the advancement of natural science, in every department," wrote Audubon, "I have

thought you should assist us in procuring specimens. We would be much benefitted by such aid. In your Rambles after the feathered Tribe, you surely must come across at times with quadrupeds, and if you were good enough to shoot them or to catch them and send them to me, I personally would feel extremely obliged to you."

Ayres also became friends with Spencer Fullerton Baird, a major force behind the Smithsonian Institution. David Starr Jordan, who was often described as the dominant figure in ichthyology in North America, once remarked that much of the work on fish accomplished by the United States National Museum and the United States Fish and Wildlife Service was possible because of the direct help and the inspiration given to amateur and professional ichthyologists by Baird. William O. Ayres was one of those amateurs.

AFTER GRADUATING from Yale, Ayres taught in Connecticut, studying the local fishes in his spare time. He then moved to Miller's Place, Long Island, and taught school there, and began studying the fishes of Long Island. During these years, he maintained his association, begun at Yale, with the Boston Society of Natural History. He not only published his studies of fishes in the Society's publications, but he was active in the affairs of the Society.

Ayres married Maria Hildreth of Sag Harbor, Long Island, in 1847. He returned to Yale in the early 1850s to study medicine. After receiving his medical degree in 1854, Ayres took his family to settle in San Francisco. Ayres opened a private medical practice, and became a professor and dean of the faculty at Tolland Medical College. He was a prominent member of the California Academy of Sciences and is often considered the first resident ichthyologist of California.

But abruptly, after 1864, he stopped describing fishes. No one is certain why he stopped his association with ichthyology. Because many California records were destroyed in the San Francisco earthquake at the turn of the century, there is no published material available about this turning point in his life.

Two assumptions may be made. First, his professionalism had been questioned in 1863 by Theodore Gill, a prominent ichthyologist from Washington, D.C. At this time, many amateurs were being criticized by university-trained scientists, even though both were making major contributions to our knowledge about the natural history of North America. Gill's criticism may have been so distressing that Ayres quit the field. In fact, other prominent amateurs had stopped their natural history publications after similar attacks.

Second, Ayres was making financial investments, the details of which are unknown. These personal matters may have been of greater importance to him and took too much time away from his study of fishes. Apparently he lost almost everything in the late 1860s.

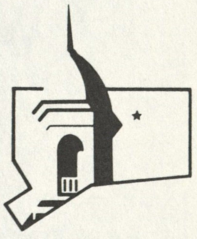
W. W. Hawkes, a New Haven medical doctor, wrote in an obituary of Ayres: "Beset by the temptations and infected by the common spirit of speculation, he embarked on a misadventure which cost him the fruits of years of skill and prudence." Hawkes further indicated that Ayres had created a product which failed in California. According to other accounts, his financial misfortunes may have been connected with the gold fever of the time.

Ayres gave up residence in California in the early 1870s and moved his family back east, and again to Connecticut. After returning to New Haven in 1874, he opened a practice in New Haven and renewed his association with Yale.

THROUGHOUT his adult life, Ayres was a man of religious conviction and optimism. "I have never allowed myself to become exasperated with any one nor to wish any person harm," he said. He died suddenly in 1887 in Brooklyn, New York, where he had moved a few months before.

W. W. Hawkes wrote in his obituary: "His stalwart physique; his high religious fervor; his firm temperance principles; his noble morality, before which the very relation of vice and ribald jest faltered, complete the symmetry and character of the man who, among all of those departed, is perhaps most missed among the profession in New Haven."

The Connecticut State Museum of Natural History at The University of Connecticut is collecting information about early Connecticut naturalists. If any reader has any information about William Orville Ayres, or any other early Connecticut naturalist, please contact the Public Information Coordinator, Connecticut State Museum of Natural History, The University of Connecticut, Storrs, CT 06269-3023, or phone (203) 486-4460.



This article was contributed by The Connecticut State Museum of Natural History at The University of Connecticut in Storrs, which exhibits mounted birds of Connecticut, the largest mounted white shark on display in the eastern United States, "Videoplace" interactive video, Indian artifacts, and offers programs for teachers, children, and adults. For information, contact the Museum, UConn Box U-23, Storrs, CT 06269-3023; phone (203) 486-4460. ■

The goal of the unique teaching style at Talcott Mountain Science Center is to breathe life into dry textbook theories and to inspire young people. (Photos courtesy TMSC.)

A Visit to Talcott Mountain Science Center

Where hands-on is where it's at

by
Laura J. Blake
Environmental Intern

WHAT WOULD YOU DO if somebody gave you an abandoned missile site on six acres of land? When the good people of the Farmington Valley were faced with this problem about 22 years ago, what they did was create a place that would be educational and of long-term benefit to the entire community; they established the Talcott Mountain Science Center.

Talcott Mountain Science Center is the result of a fortuitous combination of federal "seed money," community effort, and a staff of dedicated educators. The Center is now widely recognized as a unique science facility, able to breathe life into dry textbook theories and to inspire young people interested in science.

"We educate through hands-on experience," said a spokesperson from the Center. That idea may translate into bringing animals inside a classroom or bringing the classroom outside to the animals. Frequent field trips are taken to Connecticut's coastal state parks. The Center employs 20 instructors, all of whom travel throughout the state to classrooms from kindergarten through high school. Instructors teach classes in astronomy, chronobiology, ecology, electronics, alternate energy sources, geology, meteorology, photography, satellite communications, the metric system, and computer technology. Many times classes will travel long distances to the Center where computers and over 50 telescopes are available.

DIRECT PARTICIPATION and independent discovery are the most important elements of the Talcott Mountain teaching style. An elementary school class will not only be taught about pond life, but will travel down

Route 44 to Ely Pond to observe that pond firsthand. The youngsters scoop water samples, sift through the water, and then use field guides to identify all insect and microscopic life found therein. After examination, the water samples are returned to the pond and to nature.

Independent work of students has already led to some important findings. One computer course evolved into a course on computer music, with a crop of budding composers. In another project, two junior high students worked with surface wind climatology, launching and tracking weather balloons. Their data was used by a citizen action group to challenge a planned superhighway. The data indicated a significant risk of pollution to a nearby reservoir if the highway were to go through. The plans for the highway were halted.

Hard environmental issues are dealt with in the ecology classes of TMSC. Actually testing for acid rain shows the student how the ecosystem is chemically affected by this phenomenon. Other ecology classes may involve talks by Steve Gephard of the DEP's Fisheries Bureau. Students go on an hour-long tour of the Windsor Fish Hatchery, and observe first-hand the life cycle of fish.

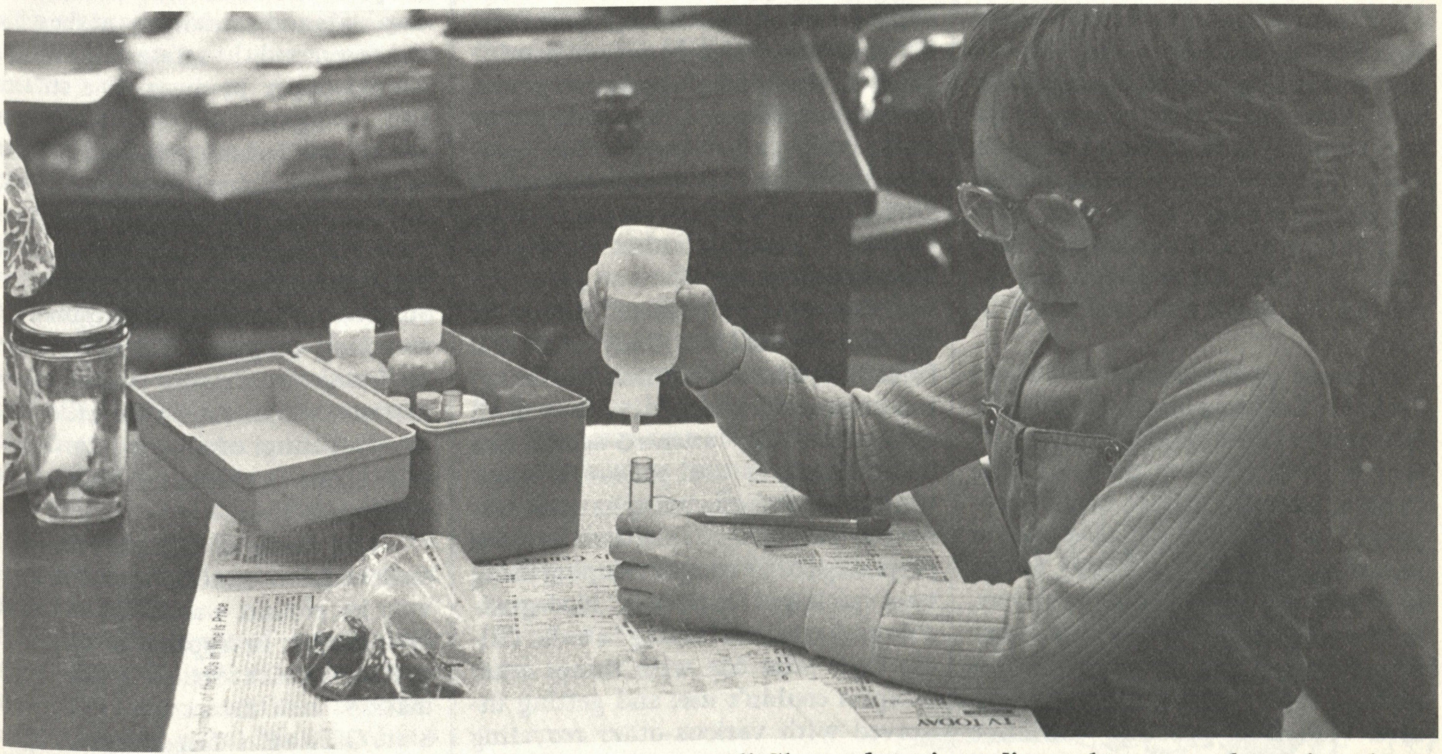
"WE SEE SCIENCE not as drudgery, but as fun," says Jonathan Craig, assistant director of the Center. "Here, students use real situations and applied models. They learn by doing." Craig teaches graduate-level courses for Talcott Mountain teachers, as well as at St. Joseph's College in West Hartford. Some of his classes are conducted at Osbornedale, Hammonasset, or Sherwood Island state parks, as he stresses the importance of direct observation of nature. Teachers often find they are learning just as their own students are. Teachers are encouraged to stress the hands-on approach in their own classrooms.

Programs at TMSC have expanded along with growth in funding. With the help of corporate and private sponsorship, the Center now includes its own television studio for work in interactive satellite television, a solar-heated building for research on alternate energy, and a weather station. In addition, there is a special program for talented and gifted students which is run on Saturdays throughout the school year. In this program, each student chooses a specific field of study. Half the time is spent on class work, and the other half is spent on independent research. These studies encourage work that extends beyond the classroom walls and into the community.

Speaking engagements to community groups have included a talk by Michael Bell, author of the very popular book on our state's geology, *The Face of Connecticut*. In 1985, TMSC began sponsoring a program, known as SCISTAR, designed to educate through television. Using satellite broadcasts, SCISTAR beams the "stars" of the science world into classrooms through the television screen. Included in the list of notables are Dr. Seymour Papert, developer of a computer language, and James Randi, internationally-known author, magician, and occult investigator. As in all the TMSC programs, the students have active input, this time through phone lines linking them with the speakers.

SCISTAR is described as a program designed to bring science to life but, really, that description fits the entire center and its programs as well. Talcott Mountain Science Center is the place to go if you're interested in seeing science leap out of the textbook and into the real world.

For further information on the Center, please phone (203) 677-8571, or write: Talcott Mountain Science Center, Montevideo Road, Avon, CT 06001. ■



In all TMSC programs, the students have direct input. All Classes have immediate relevance to the real world.

Kids Receive Environmental Awards

Forty Connecticut school children, a recycling superhero in green tights and a gold cape, and Governor William A. O'Neill were part of a ceremony at the new Legislative Office Building in Hartford last December.

Governor O'Neill presented certificates to six school, scout, and camp groups, winners of the first annual Governor's Environmental Achievement Awards. Assisting the governor in the presentation ceremonies were Leslie Carothers, commissioner of the DEP, and Ray Cycle, the state's recycling superhero.

The competition, sponsored by the DEP, is open to student and other youth groups in kindergarten through 12th grade. The theme of the 1988 competition was recycling. Winners and their recycling projects were:

Roosevelt Action, a student group at Roosevelt School in Bridgeport. The group of kindergarten through third graders, sponsored by Anna Marie Abbamonte, held a May newspaper recycling drive to which hundreds of the school's students contributed.

Kindergarten and first graders at Joel Elementary School in Clinton. The students, sponsored by Laura Berardi, investigated the garbage problem, focusing on their school grounds. They also made anti-littering posters for garbage cans at a town park, made recycled paper, and developed a "Big Book" on pollution and recycling activities for display at the town library.

Hebron Elementary School's TRASH (The Recycling Association of Students in Hebron) was developed by fourth, fifth, and sixth graders in the Hebron Summer School honors program. The group focused on education regarding recycling -- writing letters to editors and supermarket managers, performing skits for other summer school classes, and developing a display, a brochure, and a litterbug sculpture. TRASH's sponsor was Lisa Thomas.

Students from the Joel Elementary School in Clinton were among the six groups to receive awards for their participation in the 1988 Governor's Environmental Achievement Awards Program. The students were congratulated by Governor O'Neill and Ray Cycle for their award-winning project on recycling. (Photo: Anthony Calabrese)

Girl Scout Troop 241 of Simsbury, with the help of Simsbury Girl Scout leaders Sally S. Rieger and Mary Liljedahl, developed and tested a set of recycling badge requirements for Junior (fourth to sixth grade) Girl Scouts. The Connecticut Yankee Girl Scout Council has approved these for town-wide use and is considering them for a Council-wide badge. Badge projects include investigating community and state trash disposal, studying recyclable packaging and recyclable materials, making recycled paper and mini-landfills, learning about composting, visiting a landfill, and a variety of recycling projects.

"Something Different" Camp of Canton, directed by Judi and Lou Friedman, takes an environmental approach to all its camp activities -- with environmentally oriented sports like swimming in natural ponds and orienteering; art projects using natural materials; recycling lunchtime wastes; preparing for overnight camping using least packaged materials, biodegradable packages, and buying in bulk; filling their prize box with things other campers couldn't use; and getting involved with various other recycling activities.

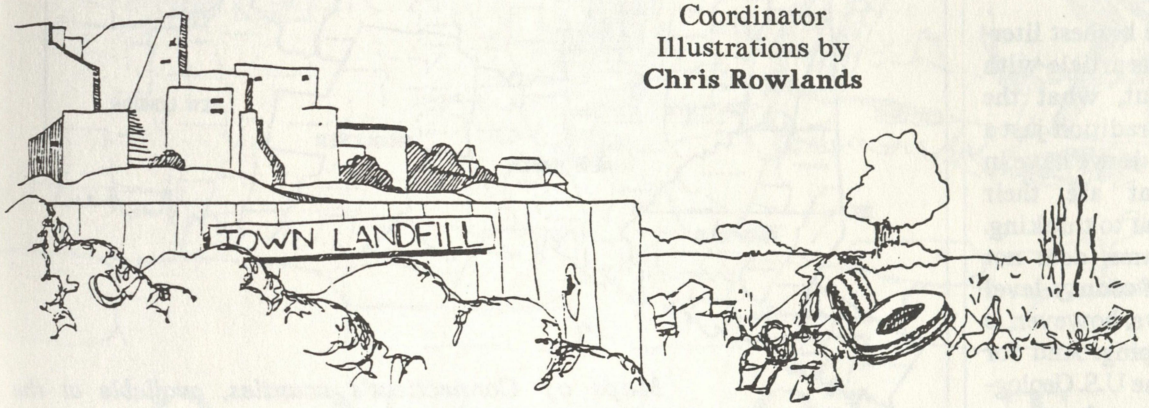
Fifteen sixth, seventh, and eighth graders at Unquowa School in Fairfield, sponsored by Kathy Intagliatto, involved the entire school in their six newspaper and bottle/can drives. The students scheduled, publicized, and helped out at the drives. They also attempted to reduce use of styrofoam materials and aerosol cans at the school and converted the cafeteria crew to using all paper products. The students also designed old-tire playground equipment and are planning additional clothes and food recycling projects.

Judges for the 1988 Environmental Achievement Awards were Patrick Spalluto, awards program coordinator; Lois Hager, coordinator of recycling programs for DEP; Steven Fish, assistant director of DEP's Information and Education Unit; Kim Marcy, recycling education coordinator; and Lynn Stoddard of DEP's Local Assistance Unit.

The theme of the 1989 Environmental Achievement Award program will be ground water. For additional information or application materials, contact Patrick Spalluto, DEP Information and Education, Room 108, State Office Building, Hartford 06106; (203) 566-8108. ■

Recycling Update

by
Leslie Lewis
Citizens' Participation
Coordinator
Illustrations by
Chris Rowlands



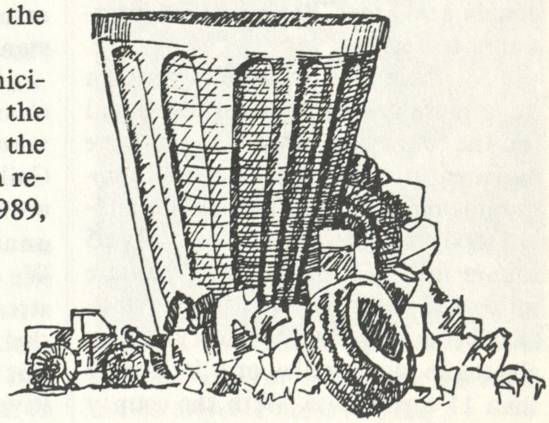
THE DEP HAS RECENTLY proposed regulations regarding the recycling of solid waste which have been submitted to the Legislative Regulations Review Committee. These regulations are expected to be in effect by February, 1989. Recycling is a major component of the state's solid waste management plan; without it, there will not be enough disposal capacity in landfills and resource recovery facilities to handle all of Connecticut's waste.

The major function of the regulations is to specify what items must be recycled by January 1, 1991, after which time these items may no longer be landfilled or incinerated (with certain exceptions). The list includes the following: cardboard, glass food containers, leaves, metal food containers, newspaper, office paper, scrap metal, storage batteries (from cars, boats, motorcycles, etc), and waste motor oil. In addition, several other items, designated as "suitable," will be required to be recycled should markets become available.

Under the proposed regulations, solid waste facilities must amend their management plans to reflect the recycling requirements. Municipalities must coordinate their recycling plans with those of the solid waste facilities, and the plans must describe the methods of public information and enforcement that will be utilized to ensure that the recycling program will be implemented.

Although recycling will be mandatory, some situations may arise which might preclude recycling certain items at certain times. The regulations give the DEP commissioner the power to approve the landfilling or incineration of the items listed as "suitable" for recycling. The procedure for decision making and the public response to such decision is outlined. Finally, municipal or regional recycling authorities and intermediate processing centers must keep records of the amount of waste they recycle, and they must report these amounts to the DEP on July 1 of each year.

It is very important that municipal officials are "up to speed" on the recycling program. To help spread the information, the DEP is planning a recycling conference on March 22, 1989, for local officials. The conference will cover current laws, new initiatives, and the role of municipalities, as well as leaving plenty of time for questions. You should definitely encourage your mayors, selectmen, and public works officials to attend. Connecticut's recycling effort will not succeed without the dedication of those responsible for waste management on a local level. For more information on either the recycling regulations or the conference, contact the Local Assistance and Program Coordination Unit at 566-8722. ■



Connecticut by the County

by
Alan Levere
Senior Environmental Analyst

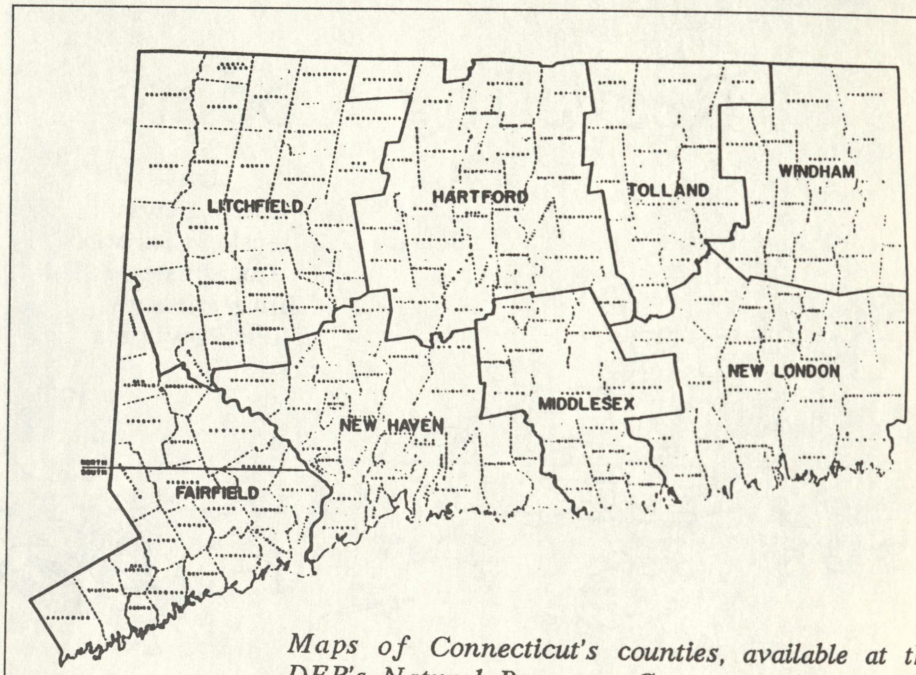
IT MAY NOT BE the highest literary style to begin this article with a two-part question but, what the heck? Let's break with tradition just a bit. How many counties do we have in Connecticut, and what are their names? This could set you to thinking.

Connecticut, of course, does not have much in the way of county-level politics. What we do have, however, is individual county mapping. And for this we owe thanks to the U.S. Geological Survey. As a result, each county can be examined on its own geographic terms.

In Connecticut, there are eight counties and they are mapped on a series of nine county maps. These maps are first cousins of the standard 1:24,000 topographic map, in that both show topography, road networks, rural houses, urban areas, water bodies, and water courses.

The difference between the two is that they are drawn at different scales. The county map is drawn at a scale of 1:50,000; at this scale, one inch equals 4,167 feet. The county map shows topography with contour intervals of 50 feet. This means that changes on the land surface are mapped in 50-foot increments. The standard topographic maps differ in that their scale is 1:24,000 -- one inch equals 2,000 feet. Their contour interval is 10 feet.

So, there is a trade-off; you can have more area covered in less detail (on the county maps) or you can have less area in more detail (on the topographic maps). Consider this: A standard topo map depicts approximately 55 square miles. There are 5,009 square miles and eight counties in the state. On the average, each county covers about 626 square miles, or a little more than 11 topo sheets. With the county maps, you get an overview of the whole territory on one map sheet, and what a benefit this can be.



Maps of Connecticut's counties, available at the DEP's Natural Resources Center, provide a unique perspective on our state.

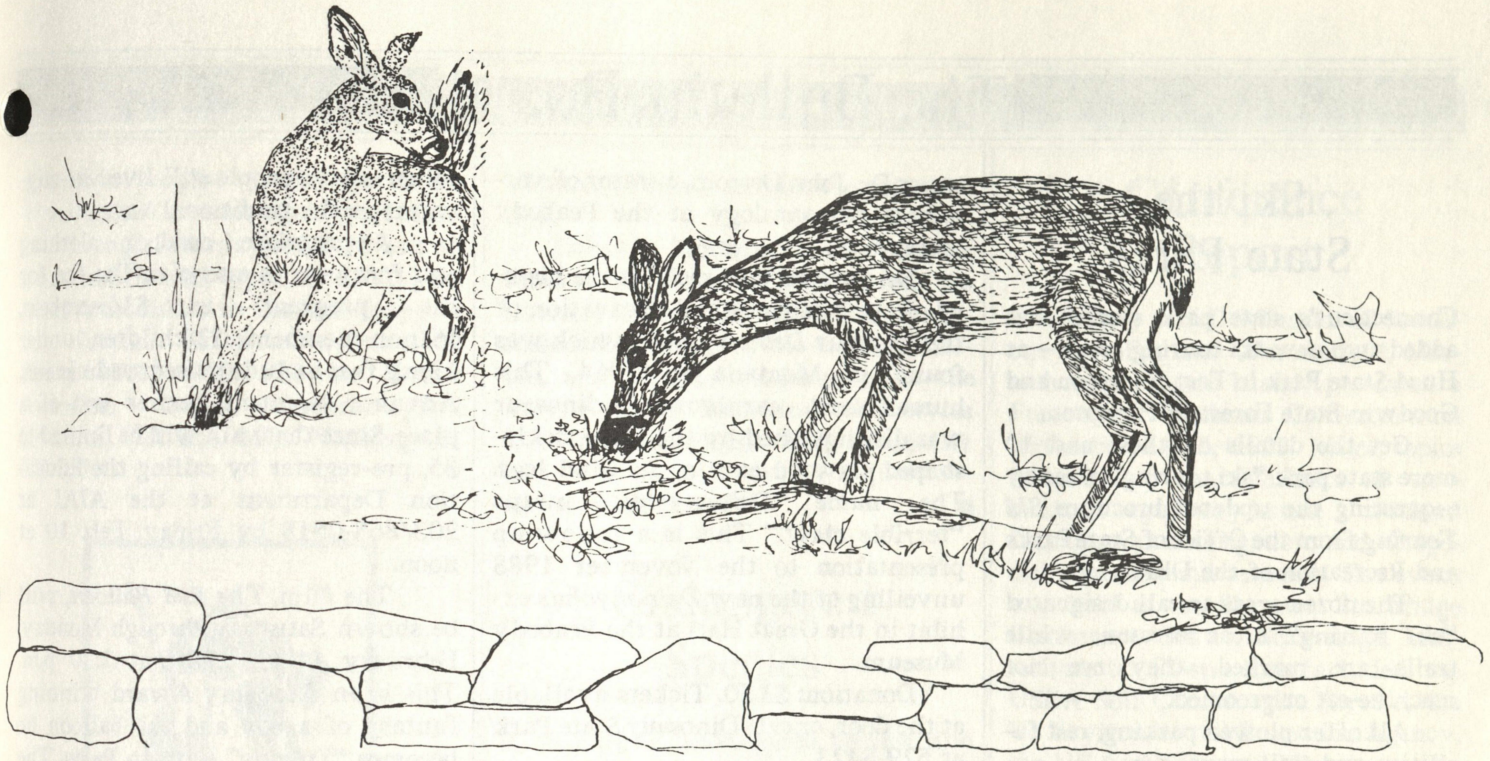
Let's look at the map of New Haven County. Right off the bat, we see it comprises 27 towns. What immediately strikes you are the colors. So much of the county is wooded, or lightly wooded, that green dominates the map. Many delineations of those state parks and forests that appear within the county boundaries are also included. Pink is next. This color depicts the more urbanized areas and corridors that radiate from greater New Haven along I-91 up through Meriden, and north along Route 10 through Cheshire. Waterbury and, to a lesser extent, Naugatuck and Ansonia also stand out.

The many blue areas make it quite clear that there is plenty of surface water across the county. While Lake Gaillard dominates, on this map there are no less than 60 other named and unnamed reservoirs, lakes, and ponds. We can see which way the rivers and streams are flowing -- nearly all make their way south to Long Island Sound. Not the least of these is the Housatonic River, which is dammed, and which forms Lakes Lillinonah and Zoar. The river then flows free to embrace the huge Wheeler Wildlife area at its mouth. The Quinnipiac is no small system either, and it is easy to see the highly urbanized area it flows through and the extent of its remaining salt marsh north of New Haven.

Connecticut's jagged shoreline stands out in fine detail, with islands, rocks, points, harbors, beaches, and tidal flats. Each county map depicts a section of great diversity in the landscape that makes up our state.

The Tolland and Hartford maps were the earliest, completed in 1978 and 1974, respectively. The other seven sheets were printed in 1979 and 1980.

At the DEP Natural Resources Center, we currently have all county maps in stock, although at any given we may be temporarily out of one or two. If you place an order, please give us an alternative in case your first choice is not available. Each separate map sheet is $4.00. Please include $2.00 to cover handling and 7 1/2 percent Connecticut sales tax. Our address is: DEP-NRC, Map Sales, Room 555, 165 Capitol Avenue, Hartford, CT 06106. ■



On Nature's Own Terms

Text and Illustration
by
Susan Carsten

THE DAY IS OVERCAST. A light rain is falling. By the time I reach the farm, it is raining steadily, but it's still warm for November. I am comfortable in my rain parka and rain pants. Several hours pass. I am amazed at how my senses sharpen -- I can hear individual leaves rustling in the slightest breeze. Mice squeak and peep beneath fallen leaves. Ducks fly overhead; the air seems to whistle through their wings. I can even smell the air itself, if I try -- the scent of pine, leaves, earth in the rain. I know the direction of the wind. In the cold, I can see the warm cloud of my breath as it rides the air currents; I notice how the tall blades of grass sway in the breeze.

The rain continues. My hat is soaked; the water drips through to the back of my neck. Cold, too cold now. I decide to quit, to go home, to get warm again.

It takes a while to strap all the gear back on. Walking back now, out of the woods, across a field. It is in that field that I see them -- two does, feeding just inside the opposite edge. They see me, too. Still walking, hoping they don't spook. I decided to stalk these two deer.

Beyond a rise in the field, there is a stone wall; beyond that, more woods. Raingear and unnecessary baggage are left behind. Quiet now, only quiet. The rain pours down heavily.

Along the edge of the field, parallel to it, is a deer trail. Closer. Closer. I can see one doe still in the field, but not the other one. Edging closer to the stone wall. A branch blocks my view. Slowly, slowly, I pull it back, clear.

One deer, the one I can see, stands still. The second one bolts.

Later. I stand in awe of the doe's beauty. I feel an old sense of sadness.

The downpour continues.

THE FOREST IS STRANGE to man these days. For even the most skilled human, meetings with animals are infrequent; the creatures of the forest are alert and wary. But, somehow we know that it is there, in the forest, where we must go if we want to see clearly and cleanly. The forest is strange to us these days, but it is there that we meet nature -- on its own terms, or not at all. ■

The author, for whom the forest is not strange. (Photo: R. Paier)

Ski the State Parks

Connecticut's state park system has added two new ski touring areas -- at Hurd State Park in East Hampton and Goodwin State Forest in Hampton.

Get the details on these and 10 more state park "ski touring" areas by requesting the updated brochure *Ski Touring* from the Office of State Parks and Recreation of the DEP.

The dozen areas are all designated "ski touring" areas because, while trails are marked, they are *not* machine-set or groomed.

All offer plowed parking, rest facilities, and trail maps.

The 1988-89 ski touring pamphlet includes directions to areas, descriptions of trails, and lists special attractions. It also gives telephone information numbers.

Call the Office of State Parks and Recreation at 566-2304 and ask for the pamphlet, *Ski Touring*," or write: Department of Environmental Protection, 165 Capitol Avenue, Hartford 06106. ■

Dinosaur Lecture

The following event will take place at Dinosaur State Park in Rocky Hill. This is the fourth in a six-lecture series presented by the Friends of Dinosaur Park Association, Inc.

Lecture Title: "Discovering *Deinonychus*." Date and Time: Tuesday, February 21, 1989. 7:30 p.m. Lecturer: Dr. John Ostrom, curator of vertebrate paleontology at the Peabody Museum.

Dr. Ostrom will recount the history of the discovery and excavation of the dinosaur *Deinonychus*, which was found in Montana in 1964. This human-sized carnivorous dinosaur was distinguished by the large sickle-shaped claw on each of its hind legs. The name *Deinonychus* means "terrible claw." This is a follow-up presentation to the November 1988 unveiling of the new *Deinonychus* exhibit in the Great Hall at the Peabody Museum.

Donation: $2.50. Tickets available at the door, or call Dinosaur State Park at 529-8423.

Place: Dinosaur State Park, West Street, Rocky Hill 06067. ■

AIAI Events

The following events are scheduled at the American Indian Archaeological Institute in Washington, Connecticut:

The film, *Make My People Live: The Crisis in Indian Health*, will be shown Saturday through Monday, Feb. 4-6, 1989, at 2:30 p.m.

This is a 57-minute color film that examines medical care available to Native Americans on their reservations. Produced for the "Nova" television series, the film considers claims that Indians require separate treatment, that our federal responsibility to them is unique, and evaluates the adequacy of their medical facilities.

Winter Survival Walk: Learn how to survive in the winter wilderness during a walking lecture by Edmund K. Swigart.

Mr. Swigart will discuss the American Indian ways of living in the snow-covered winter environment, including shelter, harvestable foods, and other life needs. A co-founder and former director of the AIAI, Mr. Swigart will draw on his background of living with the Potawatomi and Ojibwa nations before World War II when native people still lived in wigwams in the traditional way.

Appropriate outdoor clothing and footwear is essential. The fee for the program is $3/members, $5/non-members, $2/children under 12; all fees include museum admission. Advance payment assures you of a place. Since the walk will be limited to 35, pre-register by calling the Education Department at the AIAI at 203/868-0518 by Friday, Feb. 10 at noon.

The film, *The Red Balloon*, will be shown Saturday through Monday, February 11-13, 1989, at 2:30 p.m. This is an Academy Award winning fantasy of a boy and the balloon he becomes "friends" with in Paris. The Lamorisse classic charms the viewer for 34 minutes without dialogue, but with exquisite color photography.

The film, *Summer Legend (Indian Tale)*, will be shown Feb. 18-20, 1989. This is an animated version of the Micmac Indian explanation of the cycles of the seasons. The film illustrates the storytelling tradition.

Winter Indian Life Program: An Indian longhouse will be "home" and students will look at nature through Native American eyes during a day-long program on Monday, Feb. 20, 1989.

Children 9-to-11-years-old will take up residence in the longhouse in the Algonkian Village at the Institute from 10:30 a.m. to 2:30 p.m. to experience outdoor living, games, and learning in the manner of the Indians of the Eastern Woodlands. Students will spend an active and enjoyable day cooking over the fire, hearing stories, and identifying plant life and animal tracks.

Warm clothing is essential, including hat and mittens. Enrollment will be limited to 15. The fee is $10 for members, $12 for non-members. To pre-register, call the Education Department at the AIAI at 203/868-0518.

The American Indian Archaeological Institute is a center for the discovery, preservation, and interpretation of the lifeways of the Native

American peoples of the Northeast Woodlands. The museum is open Monday through Saturday from 10 a.m. to 5 p.m. and Sunday from noon to 5 p.m. AIAI is accessible to the handicapped. For further information contact: Phone (203) 868-0518 or write: American Indian Archaeological Institute, P.O. Box 260, Washington, CT 06793. ■

Gardens and Landscapes

On Saturday, March 11, 1989, at 1 p.m., the Connecticut State Museum of Natural History at The University of Connecticut in Storrs will sponsor "Gardens of a New Nation: 1785-1930," a slide lecture by Rudy Favretti. The event will take place in Room 154, Torrey Life Sciences Building, North Eagleville Road, Storrs. Fees, payable at the door, are $3 for Museum members, $5 for non-members. For further information, call (203) 486-4460.

Favretti, a landscape architect, has restored numerous early American gardens, including: Monticello, the home of President Thomas Jefferson, in Virginia; Old Sturbridge Village in Massachusetts; and Old Salem in North Carolina. He received the National Trust for Historic Preservation Honor Award in 1982.

The slide-illustrated talk will begin by covering Colonial Period landscapes and gardens, prior to 1785, and then go on to describe gardens and landscapes from the Federal Period, the Classical Revival Period, the Pre-Victorian Period, and the Victorian Period.

Eclectic landscapes, as well as those of the Colonial Revival and the Country House Era, will also be discussed. Influences of the English, Italian, and French Renaissance, and the Jekyl-Ronison landscapes and styles will be mentioned. The 50-minute talk will be followed by a question-and-answer period. ■

Endangered Species

If you think endangered species live "somewhere else," you should tune into Connecticut Public Television Thursday, February 23 at 9:00 p.m. for a special look at Connecticut's own endangered species of plants and animals. *Endangered* shows us some of the rarities within our state's borders and discusses efforts being made by the DEP and organizations like Connecticut Audubon Society and The Nature Conservancy's Connecticut Chapter to protect these species. These efforts include pioneer legislation which is currently being considered by the legislature.

Endangered was partially funded by Connecticut Audubon Society and The Nature Conservancy, Connecticut Chapter. The two organizations hope to foster an appreciation of the great natural diversity within our small state and the importance of protecting that diversity. ■

Conference Report

The Society of Soil Scientists of Southern New England (Connecticut, Massachusetts, Rhode Island) presented a Freshwater Wetlands Conference on November 14-15, 1988. Major topics included: 1) characteristics of wetlands; 2) regulatory issues; 3) wetland functions and mitigation; and 4) special concerns and research. The event was held at the Sheraton Sturbridge Conference Center, Sturbridge, Massachusetts. Co-sponsors included the USDA Soil Conservation Service, the US Environmental Protection Agency, the US Army Corps of Engineers, the US Fish and Wildlife service, the Connecticut Institute of Water Resources, the Massachusetts Water Resources Research Institute, the Rhode Island Water Resources Center, and the Universities of Connecticut, Massachusetts, and Rhode Island. Municipal officials, state and federal agency representatives, scientists, consultants, engineers, developers, environmentalists, landscape architects, and others expressed a strong interest in the agenda topics.

Copies of the proceedings (38 pages) are available for $7.50 each, prepaid. Included are abstracts of the conference's 23 presentations. Peter L.M. Veneman is the editor. Send requests and make checks payable to: SSS of SNE, P.O. Box 258, Storrs, CT 06268. For information call: Edward Sautter, (203) 487-4047. ■

Fort Griswold Historic Park

Fort Griswold Historic Park's monument to the Battle of Groton Heights is swathed in scaffolding for the next several months.

The 127-foot tall monument at the state park in Groton is undergoing a restoration which includes repointing, cleaning of the stone, and installa-

tion of ventilation in the tower's interior to prevent moisture damage.

Restoration of the 160-year-old tower is expected to be completed in ample time for the tower to open in May 1989 for its usual Memorial Day through Columbus Day season, according to Richard Clifford, director of the Office of State Parks and Recreation.

Visitors will then again be able to climb the tower's 160-step stone spiral staircase to an observation platform with windows on all sides for a panoramic view of Long Island Sound. (The tower, which is 29 feet square at the base, accommodates only about four to eight persons at a time on the observation deck, Clifford notes.)

The monument commemorates the Americans massacred at Fort Griswold by the British in 1781 at the infamous Battle of Groton Heights. Its construction began in 1826, financed by a lottery. Builder Nathaniel F. Potter was paid $11,500 in 1829 for his work.

Originally the monument lacked its pointed top. This was added for the centennial anniversary of the battle in 1881.

The architect for the restoration is Peter Argiros of Marlborough, and the contractor is Cristwood Associates of Bridgeport. It will cost about $325,000.

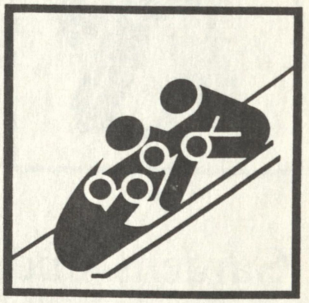
Fort Griswold Historic Park is two miles from the Clarence B. Sharp Highway exit off Route I-95. ■

Around the State

February 5, 1989. New Preston: Old Fashioned Ice Harvest. The Inn on Lake Waramaug. Admission free. Ice sculptures, free ice skating party with bonfire. Contact: The Inn on Lake Waramaug, Kevin Kirshner, New Preston 06777. (203) 868-0563.

February 11-12, 1989. Salisbury: Salisbury Invitational (2/11) and U.S. Eastern Ski Jumping Championships (2/12). 63rd year of Olympic level competition on the 55-meter jump at Satre Hill, off Rte. 44. Contact: Bill Appleyard, c/o Hotchkiss School, Salisbury 06068. (203) 435-2591.

February 12, 1989. Wethersfield: Colonial Concert. Sights and sounds of 18th Century America -- fully costumed choirs and instrumentalists. Dick Bertel, narrator; Festival Choir, Cantata Singers and Instrumentalists of the First Church of Christ, 250 Main Street; The Colonel John Chester Fife and Drum Corps. 7:00 p.m. Admission: $6. Contact: (203) 563-7759.



The Night Sky

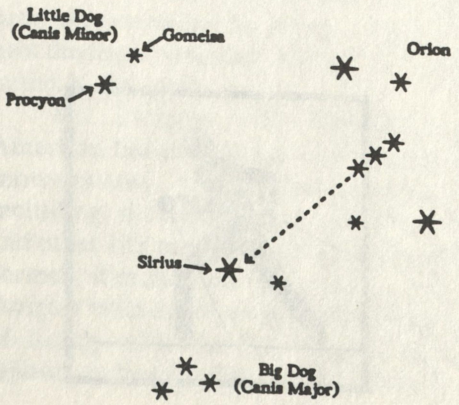
Before the Dog

by
Francine Jackson

WHILE ANCIENT PEOPLE observed the motion of the planets, they noticed that the stars stayed fixed with respect to their relative positions in the sky. However, if these observers had lived for a thousand years, they might have discovered that their "fixed" stars actually do move, but very slowly. Because their movements are so slow, the average person will not notice a change in the sky; the star with the fastest "proper motion," Barnard's star, moves only about 10 seconds of arc per year. At that rate, it would take 180 years to move a distance equal to the diameter of the full moon.

Likewise, Procyon. The eighth brightest star in our nighttime sky moves the same distance in about 1,000 years. To put this in human terms, this is half the width of your little finger when held at arm's length. The only way the proper motions of stars can be seen without waiting centuries is to superimpose photographic plates of the same star field taken several decades apart.

Procyon is the brightest star in the constellation Canis Minor, the Little Dog. Actually, it is one of only two stars visible to the unaided eye. The other, to Procyon's right, is Gomeisa (go-MY-sa), and Arabic word for "bleary-eyed." If you live where you can see a nice, dark sky, you will see how appropos this name is.



Procyon means "before the dog." To the Egyptians, the rising of the star Sirius in the morning sky, just before the sun (its heliacal rising), was the indicator that the Nile would soon flood its banks -- in other words, it was planting time. Soon, it was noticed that another star, slightly north of Sirius, rose just before it. This precursor to the Dog Star became known as the "before the dog" star, or Procyon. This month, you can see both Sirius and Procyon shining beautifully in the southern evening sky. Find Sirius by following the line of Orion the Hunter's belt, down to the left, or east. From Sirius, look up, or north, to Procyon.

And, while you're facing south, look at Jupiter and Mars, the two brightest objects located to Orion's right. As mentioned last month, Mars has been closing in on Jupiter; their closest approach will be early March. ■

Trailside Botanizer

by
Gale W. Carter
Illustration by
Pam Carter

DURING A HIKE in the woods in the winter, have you ever stopped to examine the details of some of the dried plants that are poking up through the snow? Many of them have a special beauty that may surprise you.

One plant that is especially fun to examine is New Jersey tea (*Ceanothus americanus*), a small shrub that prefers open woods or rocky banks. The details are best seen with a hand lens (10X). Its fruiting body is clumped together grape-like, and each fruit is made up of three divisions or lobes. At first the fruit is green, then it changes to a blue-black and finally, as it dries out, it becomes brown. During the winter months, the fruit drops off leaving tiny shallow saucers at the spot where the fruit had been.

Perhaps you will agree with Jane Embertson, author of *Pods: Wildflowers and Weeds in their Final Beauty*, that "dark-ringed saucers standing out against the darker colored stem gives a charming effect."

During the summer months, New Jersey tea can be recognized by its conspicuous clusters of white flowers that grow out from the axil of the upper leaves. Each tiny flower of the cluster has five spreading petals that bend inward, resembling claws. There are five stamens to each flower. Blossoming time is from May to September.

The leaves of New Jersey tea are also quite characteristic. They are egg-shaped, with three prominent veins that curve to a sharp tip. The large roots are a deep red, hence, it is sometimes called "red root."

The dried or green leaves of New Jersey tea were used as a tea substitute during the Revolutionary War, while the roots were used to produce a red dye. At present, the plant in its dried form is used in floral arrangements. ■

Letters to the Editor

Excellent magazine; well thought-out, well written, very readable and interesting subject matter. Keep up the good work.

Henry Hubbell
Southington

Very poetic. A four-star magazine.

Arthur G. Murphy
Old Saybrook

May I offer some comments on the article by Francine Jackson, titled, "The Star of Peace"?

First, a word of correction. The Bible records that the Star led the Magi to the "house" where Mary, Joseph, and the Christ Child were, and not to the "stable." (Matthew 2:11) You see, the Magi's visit occurred some time after the birth of Christ, and Joseph had moved his family to a house.

Secondly, I am always amused this time of year to hear of the speculation concerning the Star of Bethlehem. The Bible tells us that the Star led the Magi from the east and "stopped over the place where the Child was." No falling star, comet, or planetary arrangement could perform this feat. I would suggest that we accept the Bible at its word.

James L. Markus, Pastor
Waterbury

Any magazine that quotes Meister Eckhart is a quality magazine. Don't change your format in any way.

Charles W. McCooe
Manchester

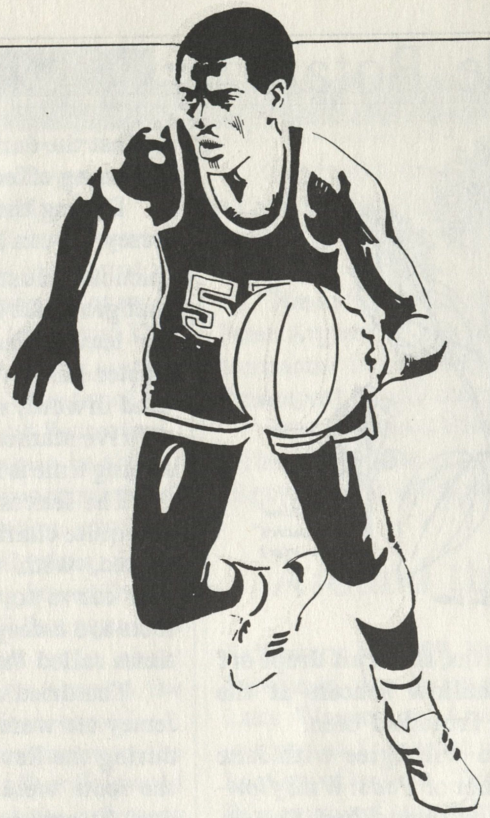
I like what you're doing. Perhaps you might add a monthly suggestion on ways we might change our life style so that we will have less adverse effect on the environment. I think it is a pressing, urgent necessity that we change.

Janet Hill
East Granby

Endnote

"I think I am in this world to find beauty in lonely places."

Louis L'Amour



Connecticut Environment

is

Fan–tastic!

Please send a *Connecticut Environment* subscription to:

Name: _____
(Please Print)

Address: _____

Town: _____

State: _____ Zip: _____

___ $6/one year ___ $11/two years

Name: _____
(Please Print)

Address: _____

Town: _____

State: _____ Zip: _____

___ $6/one year ___ $11/two years

DEP *Connecticut Environment*
165 Capitol Ave., Rm. 112
Hartford, CT 06106

Gift card to read from: _____

_____

CONNECTICUT
ENVIRONMENT
Department of Environmental Protection
State Office Building, Rm. 112
Hartford, CT 06106

SECOND CLASS POSTAGE PAID
AT HARTFORD, CONNECTICUT